THE GENESEE FARMER.

Vol. V. ROCHESTER, FEBRUARY 7, 1835. No. 6.

Published by Luther Tucker.

Terms —The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50 or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

THE GENESEE FARMER.

SATURDAY, FEB. 7, 1835.

Seasonable Hints for February.

WOOD which is wanted either for timber or fuel, should be cut in the present month if not already done. If left until the sap rises in the spring, its value will be greatly diminished, especially if intended for rails, posts, or other kinds of timber, as it is found that the durability depends greatly on its being cut when most free from sap. Timber cut early in the spring, soon becomes what is called *sap rotten*; but if cut only a few weeks later, when trees are in full leaf, it will remain sound in similar situations. Probably the best time, however, is the present month.

WHEAT FIELDS should be examined to ascertain if the water courses are free from obstructions. Thaws not unfrequently occur during the winter, and furrow drains become choked with snow, ice, and earth, especially if they have not been well cleared of loose earth the previous autumn. Geese often stray upon wheat fields during thaws and do much injury. Whenever open weather occurs during winter, the first inquiry ought therefore to be, "Where are the geese?"

CATTLE should not be kept too closely together in yards, and particular care should be taken of the weaker individuals. "On this account," says Arthur Young, "there ought ever to be plenty of trough and rack room, that too many may not feed together; in which very common case, the weaker are not only trampled down by the stronger, but they are worried and become cowed and spiritless, than which there cannot be a more unfavorable state for thrift; besides, these are ever compelled to shift among the worst part of food. * * This is, much oftener than is suspected, the chief reason of the difference so visible in a lot of beasts after a winter's keep." As the stronger animals generally manifest a remarkably domineering spirit, they should either be kept apart from the weaker, or else their horns should be tipped with balls to blunt them; a little care in this respect would prevent the sight of several gored and wounded animals, so often witnessed in cattle yards.

Whenever cattle become drooping and fall away in flesh, they should be immediately examined to see if this is not owing to lice which is frequently the case. When they are thus infested, it has been recommended, in order to repel them, to rub the upper part of the neck and back with warmed hog's lard. An anecdote, just related, may possibly serve to throw a little light on the subject. A neighbor recently had several cattle in a declining state, and were supposed to be lousy. He inquired of a workman in his employ relative to the cause, and was informed that the lice crawled to the animal's nose every day to drink the drops of sweat, and that this was the cause of the drooping appearance of his cattle. He replied that he would soon put a stop to that. He accordingly tied a small string which had been previously drawn through mercurial ointment or unguentum cœruleum, round the animal's neck, in order to cut off the passage. The consequence was that in a few days a remarkable change was witnessed for the better; not probably however in consequence of the insects being deprived of their sweaty beverage, but from their abhorrence of the mercurial application.

SHEEP require, equally with cattle, attention relative to keeping weaker and stronger individuals in the same flock. When any therefore appear spiritless and weak, they should be immediately separated from the flock, and placed in an enclosure by themselves, so that they may not be driven or crowded away by others, and where they may receive additional care and attention and more nutritive food. In this way, they may be often easily wintered, when they would otherwise soon perish. Lambs of the last season should always be kept separate from the rest of the flock; this is absolutely necessary.

The Bots in Horses.

We are not quite certain when people say of a horse, "he has got the bots," that they have any definite idea of the time or manner of his *getting* them. Yet were we to inquire on those points, we might possibly be told that the bot-fly fastens its eggs on some part of the horse's hair, chiefly about the fore legs; and that the young insects, some time after, get into his stomach. What do they do there? Do they immediately begin to gnaw the stomach? Or do they defer the attack till the horse is diseased in some other way?

If the last suggestion is correct, then it may be difficult to distinguish the effects of the bots from other violent diseases. The pain of the colic for instance, may be as local as a party of bots; and if the farrier should mistake one for the other, he may give the poor sufferer very improper medicines. We have no doubt that many fatal blunders of this kind have been made.

We believe it is not pretended that bots on entering a horse's stomach, immediately begin to gnaw it. It is nearly certain that some horses have never in the course of their long lives suffered by these larvæ; and yet we can hardly think it possible that their stomachs should not at some time or other have contained some. The hostler who throws ashes into the pail when he gives his horses drink, does it on this supposition,—believing that the potash which is there diffused through the water, will expel the bots. This alkali indeed, may sweeten the stomach, by neutralizing acidity, and thus prevent the ill effects that often arise from indigestion,—for it seems to us, impossible when a horse is over driven that his digestive organs can perform their proper functions.

It would therefore appear that a horse may have bots and yet suffer no inconvenience. Dr. *Harden* of Georgia, has even written much to show that they *never* cause any inconvenience to a horse; and that "the death which colic caused is put upon *a very harmless insect*, and one that is *necessary* to the health of the horse."

The publication of this opinion in the (Baltimore) American Farmer, was followed by a long discussion of the subject in that paper, and in some others during the course of which it appeared to be considered as a fact by several writers, that *no medicine is powerful enough to kill the bots without destroying the horse*; and if this point can be established to the satisfaction of common farriers, we think there would be much improvement in the treatment of sick horses. We shall therefore copy an account of some experiments.

"Twelve two ounce phials," says Dr. *Harden*, "had bots put in them; one had *milk* put in it—another *water*—and a third, *nothing*, as a standard; we then filled the others with a strong solution of *copperas*—a solution of *arsenic, aqua fortis* and water—a solution of *corrosive sublimate*, &c. Nine of them being filled with such things as were thought to be most likely to kill them. *The arsenic, copperas, and aqua fortis, appeared to have no effect on them*; they appeared fully as contented as those in the water. Those in the laudanum however, moved less than the others, remaining apparently dead at the bottom of the phial, but moved when touched. After keeping them until *we were all satisfied that nothing that a horse could take would injure them*, they were all thrown away."

Another writer says, "A friend of ours has seen the experiment tried of putting them into a strong solution of *potash*, which *did not appear to injure them*." *L. Capen* of South Boston (N. E. Farmer) declares, "It is evident *they cannot be killed within the horse without endangering his life*;" and these opinions are confirmed by *Peter Ellis*, of Crosswicks (N. J.):—"I have tried most of the prescriptions that I have heard of, for destroying bots, by applying it to them after taken from the horse, but *never discovered any thing that would destroy them which would be safe to give the animal.*" "A Spartan" of Georgia, says, "The remedies usually administered are absurd beyond measure, indeed fatal. Such as *whiskey, spirits of turpentine, fish brine*, solution of *blue stone*, &c. given for the purpose of killing the bots or "making them let go," as tis said, neither of which purposes if it could be accomplished, would be of any use, as the inflammation which already threatens life, would remain to be cured. But both of these objects are unattainable: *the insect will bear to be immersed eight minutes in strong aqua fortis before he dies.*" Another writer adds, "I can attest the truth of Dr. Harden's remark, that *nothing innocuous to the stomach of a horse, will destroy worms so tenacious of life. White* in his treatise of Veterinary Medicine states that '*bots have been found to resist the strongest poisons*, nor have we yet discovered any medicine capable of destroying or detaching them from their situation.' Unwilling to grant this, I once took several bots and immersed some in oil of *turpentine*, and others in *spirits of wine* for a considerable time, without either producing any

sensible effect upon them. From that moment I ceased to administer unprofitable anthelmintics to expel them."

We hope that this mass of testimony will be sufficient to deter any farrier from attempting to administer medicines to kill bots within the horse; and on this we shall rest for the present; but it is our intention soon to resume the subject.

A Remarkable Flower.

Flint, in his History and Geography of the Mississippi Valley, has the following passage: "We have seen a *large flower* on the arid bluffs of that high limestone wall that runs like a huge parapet between St. Genevieve and Herculaneum, on the west bank of the Mississippi. The summit of this parapet has not more than two or three inches of soil, and is bare of all vegetation, but a sparse, seared grass. It was under the burning sun of July when every thing but these flowers, was scorched. The cup of the flower was nearly half the size of the common sunflower. It rose only four or five inches from the soil, and covered it as with a gilding. We have seen no description of this striking flower, nor have we seen it existing elsewhere." It is to be presumed from the term "gilding" that the flower was yellow.

I wish to ask if any reader of the American Farmer resides in that quarter? and if so, whether he would be willing to collect some of the seeds when well ripened, and after drying them in the sun, transmit a small packet, not weighing more than an ounce, by mail, or otherwise, to the Editor? The favor would be promptly reciprocated in regard to any seeds that could be procured in this quarter. AN AMATEUR.

☞ We copy the above from the American Farmer of 1832, for the purpose of inviting any subscriber or reader of the Genesee Farmer, who have it in his power, to comply with the request contained in the above by sending some of the seeds to this office.

Culture of Silk.

The advantageous production of this article as a domestic manufacture in the United States, was till recently considered chimerical by most people; and consequently the arguments adduced in its favor were generally disregarded. Public sentiment, however, seems rapidly changing its course on this point, and a general solicitude on this subject, has succeeded former apathy. Our correspondence, both public and private, bears ample testimony to this fact, while it affords us the pleasing assurance that the time is not distant when the culture of silk will be generally adopted. Aside from the pecuniary advantages which are expected to result from its culture, we regard those of a moral nature of at least equal, if not superior consideration. The healthful exercise it will afford to young ladies, and to children of less mature years, in superintending the incipient, and if practicable, the more advanced stages of silk manufacture, cannot fail of proving both physically and morally beneficial—physically, by imparting through the medium of well regulated exercise, elasticity to the animal functions, and morally, by detaching the young mind from the pursuit of those vicious schemes which are ever luring the idle. Nothing perhaps, will sooner arrest the attention of the young, and induce in them a habit of reflection, than the operation of the worm in spinning out its task, enveloping itself as it were in a living tomb.

There is nothing that appears so well calculated to supply the place of the "*spinning wheel*," rendered useless by the "spinning jenny," as the preparation and manufacture of silk, and nothing that equals it for beauty and durability as wearing apparel. Young ladies who promote the culture of this valuable article, will be entitled to all the praise awarded to her whose hands wrought "wool and flax," and whose household was clothed in fine linen, and her "husband known when he took his seat among the Elders of the land." The time is not distant when the lack of this part of domestic industry will be considered an evidence of a perverted taste, and the want of moral refinement. We would therefore urge the speedy adoption of measures for the prosecution of this branch of domestic industry, satisfied as we are that in so doing, we propose nothing but what is in accordance with the substantial interests of the agricultural community.

The following, from a correspondent, is inserted with a hope that its suggestions may be of use to those who are about to commence the growing of mulberry trees:

To Farmers.

If ye aspire to wealth and ease,
Stock well your farm with mulberry trees;
The silk-worm will their worth unfold,
And coin their foliage into gold.
Suppose that you have never known,
And are not curious to be shown
The simple culture of the worm;
Your neighbors may the thing perform,
And then the leaves, which you produce,
In skilful hands become of use.
The Farmer who would make pretence
To taste, should have a hedge-row fence;
No tree that's known, so quickly grows,
Or looks so uniform in rows.
It springs from cuttings or from seeds,
And overcomes poor soils and weeds;
And in four years will make a fence,
With, of all things, the least expence.
And when, instead of walls or rails,
The mulberry hedge around prevails,
The lands produce a mine of wealth,
Employment, happiness and health.
The mulberry grows on every soil,
Requires but little aid or toil,
And the best silk is always found,
Produced from leaves off sandy ground;
While a rich soil will leaves produce,
Abounding in a watery juice,
And on which, if worms be fed,
They make a coarse and brittle thread.

Agricultural Report for 1834.

Although the quantity of *wheat* raised in this state is annually increasing, from our becoming rather better acquainted with the plant, and a denser population, and consequently new grounds coming under the use of the plough, still the crop, considered as a whole, and allowing a pro rata calculation for the causes of its increase, is not as great this year as it was in 1833. The winter of 1833-34 was what is called an open one. A good deal of wheat was frozen out in the course of it, from the want of snow, which is essential to a good winter crop. The spring of 1834 was favorable to its growth, but in the early part of the summer the weather was extremely hot and dry. The thermometer for some weeks in July ranged nearly at 90 degrees, and no rain to moisten the earth and cool the atmosphere. The weather was not injurious to wheat in particular localities, but in other parts of the state the wheat suffered from blight, rust, and in a few of the midland counties, from the depredations of the grain-worm, supposed to be *Vibria Tritici*. This grub made its appearance in June, was most troublesome in a few countries north of Albany, where it committed great ravages, and from whence it will probably spread to contiguous counties the succeeding season. The earliest indication of its appearance hereafter ought to be carefully noted, and its method of propagation and propensities closely observed, in the hope that it will lead to the adoption of a plan for its extinction. Generally speaking the crop was of less weight too than the last year, and would hardly average 60*lb.* to the bushel, which is less than the weight ordinarily of our wheat. The price too has been at least 15 per cent. less than the last year. We presume this was imputable to rather a lessened demand for many of our productions.

Wool.—The quantity grown in this state is annually and rapidly increasing, and the quality improving. Farmers generally are becoming better judges of both the animal and its fleece, and raise more of the valuable kinds. The native sheep have been much improved upon by intermixture with the foreign varieties, and we bid fair by a careful attention to this branch of agriculture, considering our facilities for its prosecution, to rival the English in the quality and weight of carcass, whilst we compete with Saxony and Spain in the fineness of the fleece. Perseverance will in a short time effect this, for the American wool is now preferred by our own manufacturers to a rather finer quality of foreign, because it works up better. The home market being supplied, the prospect is, we will soon see the time when it will be sought after from abroad. The price was about the same as last year, if any thing rather better; the supply on hand now in the country is not large, and will probably be very nearly consumed by the manufactures this winter and the coming spring. The importation the last season has been small, and the prospect of the price for the crop of 1835 as flattering as the one just disposed of. The last public sales previous to the suspension of navigation by winter, (and which are a criterion not only of the quantity in market but the prospect of what the price is likely to be for months to come,) was quite as good as former sales and if any thing rather in advance. The price of the article in Europe remains much the same as it has been some months previous, although there were reports to the contrary. The manufacturers of woolens in Europe have constant employment and a brisk demand for their products.

Indian Corn.—In this article for the last year there has been a great falling off in the quantity. The prospect for a crop was never more flattering than it was in the month of June last, when the coolness of the preceding spring had abated and the warm weather set in, but early in July the drouth commenced which continued nearly three months. The corn suffered very much from it. The crop taken as a whole was not over a half yield, but the quality is good, and none was lost for want of ripening. Although this crop is small, the price is not advanced beyond the previous year. Corn is more extensively cultivated than formerly, and in ordinary seasons more is raised off of an equal quantity of land. It delights in a warm rich soil—clayey lands are not congenial to its growth without they are well manured, and we have a wet but warm season. Under such circumstances they will produce heavy crops, but it requires a late fall (that is, late frost) to ripen it. In suitable situations it is a profitable crop, next only to wheat, for it yields not only heavy crops of grain, but large quantities of the best of provender for a winter supply for stock, at the same time that it materially adds to our supply of manure. It is more extensively cultivated in the southern and middle than in the western portions of our state.

Oats are our next best crop. As they are extensively cultivated, the supply in a measure supercedes the demand for corn. They do well on lighter land. The spring and summer were both favorable to their growth, and they probably suffered less from the drouth than any other kind of grain. This crop taken as a whole, was rather more than an average, and their growth seems to be congenial to all situations and soils. Upon the highest hills and lowest vallies, upon the lightest sands or heaviest clays, they make the best of circumstances, and thrive in all places—but from their greedy nature they exhaust the soil, and for that reason ought not to be extensively

cultivated. The price about the same as last year. Stock will eat this straw next in avidity to that of corn.

The increasing demand for *Barley*, for some years, has rendered its culture of the first importance in many of our agricultural districts, particularly in towns near and contiguous to the Mohawk, and even farther west; and it gives us pleasure to say, that the crop has been good—better than medium, and the quality fair—though prices, probably from the abundance of the crop, have not sustained their usual grade.

Hops have yielded too a fair crop, though we are sorry to say the quality has, as usual, been bad. The growers have suffered greatly in their prices in consequence of either the premature gathering of the crop, or of its having been injudiciously cured. But few good samples, we are told by buyers, have been offered in market; but these have brought a good price.

Potatoes were a light crop—not more than one third of an average yield. It was entirely imputable to the dry weather, and they are an article now both high in price and in great demand. The kinds of potatoes generally cultivated are bad in quality and not over large in product. In both they are susceptible of great improvement, and it is against the farmer's interest that they do not receive it.

Pork has not been as cheaply fattened nor as much sought after as last year. The want of apples this year has been a serious loss to this interest, and the consequence was that to fit our hogs for market drew too much on our grain crib, which has made the fattening of the animal extremely unprofitable. The price too, from there being much old pork left in market of last year, was a falling off.

Apples and fruit there were none.

Upon the whole the year has not been as extensively prosperous to the farmer as the preceding one. The dry weather beginning in July has not ended even now, and winter has commenced with the fountains almost dried up and the streams of water low. But farmers will never despond, throwing themselves upon the bounties of Providence and their own industry. The spring of 1835 will see them re-commence their labors with redoubled activity and zeal, as they act upon the motto that if they "cannot command success, they will at least try to deserve it."—*Cultivator.*

From the New England Farmer.

Top-Dressing Mowing Lands.

Mr. Editor,—*Sir*—In your paper of July 25th, I noticed an article from the Cultivator upon the subject of pastures, which contains some remarks which, judging from my own experience, I think are incorrect. I allude particularly to the writer's preference of the breaking up system over top-dressing as applied to mowing lands. The breaking up system in relation to pasture lands, is probably the best, and perhaps the only method by which they can be recruited. A year ago last spring, I top-dressed a small piece of mowing land as an experiment, the result of which has fully satisfied me that this is the most expeditious as well as the least expensive method of improving mowing lands. I will give you the experiment more in detail. Upon my farm was a ridge of land which had been mowed for a long period, (how long I do not know, as I had but recently come into the possession of it,) but it had become quite bound out as it is sometimes termed. The grass was quite light, and thin, yielding the summer previous at the rate of about one ton per acre. In the spring of 1833, after the grass had got something of a start, I spread upon three-fourths of an acre of this land, ten cart loads of stable manure of an excellent quality. The grass soon concealed the manure, forming a shade for it, and thus keeping it moist.

I obtained from this piece of land last summer about two tons of hay, and this season at one mowing three tons, making an increase of four fold in consequence of the top-dressing. The grass this season was about half clover and the other half timothy, grew very high and thick, being as heavy a burden as I have ever seen upon any newly laid down land. I have no doubt but that land may be profitably kept in grass for any length of time, by top-dressing as often as once in five or six years.

The reason why the same course may not be pursued with pastures with the same success, is this: The grass being constantly fed close, leaves the manure exposed to the influence of the sun and wind, the inevitable consequence of which is, the manure becomes dry and hard, and loses most of its fertilizing qualities. Perhaps some kinds of manure, such as gypsum or ashes, might be used upon dry pasture to advantage.

I am daily becoming more and more convinced of the value of manure upon our farms. We cannot attach too much importance to it. Like the vital principal in the human system, it diffuses life and energy through our otherwise barren and unproductive soils, imparting value and richness to poverty and sterility, converting the barren waste into a fruitful field.

The old motto is never more true than when applied to agriculture—"what is worth doing is worth doing *well*." Call that only done which is *well* done, and by no class of men is this motto more neglected than by our farmers. Let it be observed, however, that the exceptions to this remark are becoming somewhat numerous.

Herein may be discovered the grand secret, why upon the same farm one man will prosper, live well, and become independent; while another will toil hard, live miserably, and daily sink lower in poverty and wretchedness.

The Morus Multicaulis.

The Morus multicaulis, or Chinese Mulberry, many persons believe, cannot be propagated from the seed brought into this country. There are difficulties, it is true, attending it, but they are far from being insurmountable. The Chinese devise every method to destroy their vitality before they allow foreigners to purchase them, and it was not until after repeated trials, that a gentleman in this town was able to obtain a quantity of the genuine seed, through the aid of an American Missionary at Canton. This seed has been generously distributed here, and the experiments of last summer have fully satisfied us, that the leaves are as large and the plant as vigorous and thrifty in its growth, as when propagated by cuttings or layers from the Chinese Mulberry.

We notice in the Horticultural journals, a statement that the French Society of Agriculture have decided that the Chinese Mulberry is not a distinct species, and that the seed will not produce its own kind. Farther, this learned body have decided, that the real Morus multicaulis cannot be propagated *except* by cuttings and layers. Some seed sown in Italy and France have produced other varieties of the Mulberry. This may be the true state of the case in Europe, but it is believed such experience has no application to this country. Our soil or climate, it is to be hoped, will produce from the seed the real plant, and if it should have varieties and those varieties equal or excel those produced from the cuttings, then so much in advance of other experiments is gained. We presume those who propagate the Chinese Mulberry as a traffic will feel offended at the introduction of the genuine seed into this country. The cuttings, thousands of them have been sold at fifty cents each, but through the perseverance of one of our horticulturists, seed enough for that sum can now be obtained for more than a thousand of the genuine plants.

We have had opportunity, during the past year, to examine with some attention, the cultivation of the Chinese Mulberry, both from cuttings and layers, and also from the seed. We have been able to perceive no difference in the size and appearance of the leaves of the plant, making adequate allowance for the advantage a layer or cutting has over the seed while undergoing the process of germination Some seed sown late in the season, produced leaves measuring nine and a half by eight and a half inches, and had they had the advantage of early planting, their size would have been much increased. Even as it was, they exceeded often the size of the full grown leaves of the genuine Morus multicaulis. We may believe that another season in this vicinity will put all caviling at rest, whether the plant is superior from the seed or equal only to the cuttings. The business here will be prosecuted on an extensive scale.—*Northampton Cou.*

Hog Pens.

Having had occasion, recently, to construct a Hog Pen, in which I believe there is at least one improvement, I will describe it for the benefit of my brother farmers, and the good of all pork eaters and pork makers in general—hoping and believing that for these my philanthropic efforts in the swinish cause, I shall, at least, receive a vote of thanks (an honor conferred on many others before me) from the innumerable hog multitude with which our country abounds.

The aforesaid hog pen is 21 feet long by 16 feet wide, with posts 8 feet long, which gives room for a chamber above, from which, by a board left loose for the purpose in the floor, the hogs can be fed with corn, and in the summer with potatoes, &c. that may be put away there, without much labor. Ten feet across one side is occupied with three pens,—and each pen has a yard in the rear (an indispensable, I consider it) in which the raw material is manufactured into first rate manure. But what I consider the improvement is in first placing down the sleepers, then the floor, and then the sills on the top of the floor. Each pen is boarded inside as well as out; and here is the advantage, that notwithstanding the continual wet of a hog pen, the sills being above the floor, they are kept dry and free from decay.

The great difficulty with hog pens is, that the sills rot so quick. By my plan a new floor can be laid, and I cannot see why my hog pen will not last as long as any other building.

The remaining part of it, not occupied by the pens, into which an external door opens, is occupied by a cauldron for cooking potatoes, &c. for my hog family, and by swill barrels, provender casks, and the usual et ceteras of a hog pen. The floor of the part not occupied by the hogs is 9 inches above the other part, which makes it dry, and affords a handy place to feed them—One corner of each of the three hog apartments is devoted exclusively for their lodging, which is constantly supplied with dry straw, to the no small comfort of my porkers, young and old.

If the above description shall conduce, in any small degree, to the better and more convenient construction of the hog pens of my brother farmers,—or to the comfort, and consequently to the growth and fattening of that very necessary appendage to a farm, short-nosed, short-eared, short-legged, and broad-backed swine—then my purpose will be fully answered.—*N. E. Far.*

Prevention of Baldness.

Is it true, as a correspondent intimates, that rubbing the head once or twice a day with the cut surface of a raw onion, till the roots of the hair become moistened with it, will effectually prevent the hair from falling off? As the remedy is very simple, and the number who are suffering from approaching baldness numerous enough to make a thorough trial, it is important to collect the experience of any who may have been benefitted by the application.—*Boston Med. and Sur. Journal.*

Wonders of Chemistry.

Aquafortis and the air which we breathe are made of the same materials. Linen, and sugar, and spirits of wine, are so much alike in their chemical composition, that an old shirt can be converted into its own weight in sugar, and the sugar into spirits of wine. Water is made of two substances, one of which is the cause of almost all combustion or burning, and the other will burn with more rapidity than almost any thing in nature. The famous Peruvian bark, so much used to strengthen stomachs, and the poisonous principle of opium are formed of the same materials.—*N. E. Farmer.*

COMMUNICATIONS.

On Draught.--No. IV.

CANAL BOATS.

The second division of this subject has reference to the *substance* or *vehicle to be moved.* But as the dragging of heavy substances, without the aid of some vehicle to relieve the friction, is quite behind the intelligence of the age, I shall have no reference to the moving of weights except through this agency. Of these, there are only three, which will require any special consideration, to wit, Canal Boats, Sleds or Sledges, and Wheel Carriages.

The present number, I propose to devote to the consideration of the draught of Canal Boats, and in so doing, it will be necessary to connect with them, in some measure, the subject of canals, or the *channels of conveyance.*

To those of us who are in any way connected with the transportation of property upon our canals, this subject presents an interesting field of inquiry; and I regret that my limits will not permit me to do more than glance at a few of its prominent features.

It will readily be perceived, that the great advantage of canal transportation, depends upon the facility of giving motion to bodies upon water, and the little power required to effect it. It is not necessary here to enter into a discussion of the philosophical principles of Hydraulics, for we are all familiar with the fact, that a body floating upon water may be put in motion by a very small force; though the movement must be slow in proportion to the increase of resistance. The resistance to a body moving in water, arises from the striking of the particles against the front of the moving body, and this resistance of course increases in proportion to the velocity of the body. The ratio of this resistance is ascertained to be as the square of the velocity; and the power required to be exerted, as the cube of the velocity. For instance, if the speed of a body be trebled, the number of particles of water it meets in its progress for a certain time, is trebled; and the resistance of each particle being also three times as great, owing to the body's striking it with treble the velocity, the united effect is nine times as great; therefore, if in the first instance it required one pound to draw the body, it would now require nine, which is the rate of resistance; but nine times the resistance, moved at three times the velocity, will require *twenty seven* times the power to be exerted; and this is the ratio of power.

Now, although it requires but little power simply to move a body floating upon water, still this principle of resistance forms the grand impediment to any useful effect in speed, which may be gained from the application of power upon canals; and, therefore, the great inquiry must be, how can this resistance be overcome or obviated.

To effect this, we can resort to only three expedients; first, to the application of power, either animal or mechanical; second, to the form and weight of the boat; and third, to any circumstances or expedients which may change or relieve the resistance of the water.

We have already estimated the force of traction of the average of horses to be 125 lbs.; and their capability of labor without injury to themselves, at 6 hours per day with a velocity of 3 miles per hour. In England the draught of an ordinary canal boat, at a velocity of 2½ miles per hour, is estimated at $\frac{1}{200}$ of its weight; or in other words, where a boat weighs 33 tons, or 73,920 lbs., the ordinary force of traction exerted upon it, will be 80 lbs., which is $\frac{1}{924}$ of the load. Upon the canals in the state of New York, however, I should judge the average force of traction to be even less than 80 lbs., at a velocity of 2½ miles per hour, though the actual force exerted is often much more, for the reason that their speed is greater. Now supposing this estimate to be correct, then, as regards our canals, with the same speed and duration of labor, an increase of weight may be safely made, till it meets a force of traction of 125 lbs., and this would increase the load to about 50 tons. But there are other difficulties to overcome on canals, besides the mere resistance of the particles of water; for the confinement of the fluid in so narrow and shallow a channel, increases the resistance the boat meets with, just in proportion as the particles of water, which are displaced by the boat, are resisted by those contiguous to the sides and bottom of the canal. The resistance therefore, in a canal, instead of being in the ratio as above stated, will be vastly greater, and be constantly varying with every change of the channel, as all practical men well know. We therefore cannot form a correct estimate of the resistance to be encountered, nor of the force required; but experience has taught us, that upon the Erie canal, an ordinary boat loaded to weigh about 30 tons, and going at the rate of 2½ miles an hour, will create a resistance whose ratio will nearly or quite equal the square of the velocity. Any increase of speed, therefore, must require a corresponding increase of power, to overcome the increased and increasing resistance; and hence we find why it is, that there is such an enormous expenditure and waste of animal strength upon our canals, when loaded boats are forced along at the rate of 4 and 5 miles per hour.

But, as I have before stated, I do not consider, that a boat loaded to weigh 30 tons and going at the rate of 2½ miles per hour, will require a force of 125 lbs., nor indeed much more than half of it; and I therefore draw this conclusion, that upon the Erie canal, a boat, to meet the force of traction of 125 lbs., may either be loaded to weigh 50 tons, with the velocity of 2½ miles per hour, or with a load of 30 tons, to increase the velocity to 4 miles per hour. But after all, this estimate will not hold good in practice, for there is so much difference in the form of boats, and consequently in the resistance created; and the loss of power in the length and elasticity of the tow-line so great; together with various other contingences, that I do not believe the average force of traction upon our canals would exceed 80 or 90 lbs.; and that, therefore, the speed of a boat weighing 30 tons ought not to exceed about 3 miles per hour.

With respect then to the application of power, whether animal or mechanical, we find that with a given weight and velocity, the effect produced depends upon the local resistance; or in other words, taking the resistance as it is upon the Erie Canal, the force required to propel a certain weight at a certain velocity, will exceed the cube of that velocity just in proportion as the sides and bottom of the channel, or any other cause, hinders a free displacement of each particle of water.

But again, the *shape* and *weight* of a boat must also have an important effect upon the resistance, for it is evident, that if any substance is sunk deep in the water, and presents when in motion a blunt square surface for resistance, it will displace more water, and require a greater force, than a sharp elongated body only partially immersed.

Upon the *structure* of the boat, doubtless much depends; for though two boats may be equal in weight, still the resisting surface presented to the water may be so different, that one will require double the force to propel it that the other will. But to do justice to this part of the subject would require more time and skill and knowledge than I possess. It has, first or last, engrossed the talents and research of scientific men throughout the world, and is now daily occupying the ingenuity and skill of artisans not only in our own country, but in Europe. So far as our own canals are concerned, every boat-builder seems to have a general model of his own, which he is constantly varying to suit his fancy or that of his customers. The object of all is to arrive at the same results, to wit, the diminution of resistance, with an increase of effect; but in obtaining this result, the models of their boats are as varied as the faces and forms of those who make them. No general rule can be given on this subject, except that the model which will admit of the greatest weight and velocity, with the least expenditure of power, is of course the best.

Connected with the model of the boat, is the weight and cargo. It is evident that as you increase or diminish the one, you may increase or diminish the other; and this is a matter of considerable importance, where the profit of the load depends, as it always must, upon the cargo. If the weight of a boat and cargo is limited in any measure by the force of traction, velocity and resistance, then it becomes all important to get the requisite strength and capacity with the least possible weight, that the greatest scope may be given to the cargo. But aside from the diminution of the cargo by the increased weight of the boat, a great loss is sustained in the first cost of building materials, and also in the subsequent wear and tear of the boat; for it is evident that the tendency of the weight of the boat itself is to strain it, and every thump it receives will lessen its durability.

Hence we see the extreme folly of building heavy cumbersome boats, whose capacities for receiving loads are no greater than those of half their weight, and yet require double the force to propel them. This, too, is a great evil, and the source of an enormous waste of power upon our canals, and I have no doubt, if it could be fairly estimated, that the waste and loss of power in this particular, and the forcing of boats beyond their proper speed, as before suggested, would nearly or quite pay one quarter of the tow path expenses.

But there are other circumstances which greatly tend to relieve and change the resistance of water in our canals, and I propose to make them the subject of another number. QUERCUS.

Mr. Halsey's Report Reviewed.

NUMBER FOUR.

The committee of the Senate, Mr. Halsey being chairman, after having given a concise history of the origin and progress of the late Agricultural Institutions in this state, and alluded, as they supposed, to some of their principal defects, came to the conclusion that the whole enterprise had been a splendid *failure*. It will be necessary here to know what they say.

In allusion to the plan of the late Agricultural Institutions, the committee say, "In theory, the general features of this plan seemed to afford promise of much public benefit. In its practical operations, however, it disappointed the hopes and expectations of its projectors; and the committee regret to be obliged to say, it had little or no effect in improving the Agriculture of the state." On this point, it is obvious that the committee are at issue with a large portion, including, it is believed, an overwhelming majority of the intelligent and well informed citizens of this state. Such, it is believed, are not the prevailing sentiments of the community. Such evidently were not the sentiments of his Excellency the Governor; for he recommended agriculture to the patronage of the Legislature, suggesting plans and measures similar to those embraced in the plan to which the committee refer. His immediate predecessor in office, although he had not been friendly to the Agricultural Societies, frankly admitted in one of his messages, that these Institutions, imperfect as he supposed them to have been, had been the means of doing a great deal of good. I have not the document before me, but I am confident I state the fact in a manner substantially correct.

One year before the report now passing under review appeared, another legislative committee, not less respectable for intellect, and for experience and observation in matters of agriculture, than the committee over which Mr. Halsey presided, having considered the same subject, came to conclusions entirely different from such as are recorded in this document. I allude here to the committee of which Mr. Skinner was chairman, and to their report I refer. Let us hear then what they say. "Your committee," say they, "now beg leave to advert to the act of this state of 1819, appropriating forty thousand dollars for agricultural purposes; and although its results were not as beneficial as its most sanguine friends anticipated, yet they have furnished to those who have had the opportunity of noticing our late improvements in husbandry, ample proofs of the utility and importance of public appropriations for such purposes. And we are satisfied that the forty thousand dollars appropriated by our Legislature in 1819, to stimulate to improvements in agriculture, have been refunded, amply refunded, to our treasury, principal and interest, in the increased amount of our canal revenue alone, to say nothing of the moral and intellectual improvement which the impetus that law gave to skill and industry wrought in our population. Wherever the spirit of improvement went forth, which that law called into action, every branch of husbandry has been rendered more productive; more labor has been applied, and better applied, than before; and the impulse which it gave to mind and body, has not even yet lost its force. How many farmers are there at this day, who can say that *that* much abused law gave the first stimulus to a course of improvement in their business, which has subsequently rendered them more wealthy, more useful, and more happy."

The remarks contained in the paragraph thus quoted, touch the subject in strokes so lively and appropriate, that, long as it is, I have thought it best to transcribe the whole of it. In support of sentiments thus expressed, and in support of the general policy of encouraging improvements in agriculture by awarding premiums, the same committee employ a system of ingenious and conclusive reasoning. They also successfully advert to long protracted experiments in England, in one of our sister states, and in one of the counties of this state. The results in all the cases referred to, are said to have been the most satisfactory, and decisively in proof of the utility of agricultural societies, operating in connection with the premium policy. To conclusions thus deduced, and so well supported by facts, as well as common sense, it is believed, a vast majority of the citizens of this state are now ready to respond their assent. It certainly is so in the circle of my acquaintance. Very many of those same citizens who opposed the agricultural societies, when they were in operation, have, to my knowledge, subsequently admitted that they were of great use to the agricultural interest.

It must, however, be admitted that there are some exceptions. There are men within the bounds of my own knowledge, to whom no greater offence can be offered, than to speak, in their presence, of agricultural societies. Unfortunately, these men are alike opposed to every other expedient that has been suggested for the improvement of agriculture. Agricultural journals are smoke in their nostrils. These they cannot endure. The very notion, that any thing can be *printed* for the benefit of agriculture, is, in their view, perfectly preposterous. Ploughs, harrows, axes, hoes, and such like implements, say they, are to be used in carrying on agriculture; not pens, not types, not printing presses, not books. These men are evidently blinded, and what renders their case peculiarly unfortunate is, their blindness is wilful.

Turning from this class of citizens, which is believed to be very small, I am confident that the general sense of community, in regard to the utility of agricultural societies, is in unison with the views of Mr. Skinner and his associates in committee That the views taken by these gentlemen, of the late agricultural institutions, are substantially correct, I myself have not the smallest doubt. Under the system then employed, from its cradle to its grave, I was a member of one of the agricultural societies, and had the honor, all that time, to occupy a seat in its executive board. I may claim, then, the credit of some small experience in these things. It is certainly a fact, in regard to which I cannot be mistaken, that, under the auspices of the society with which I had the honor to co-operate, agriculture revived, and readily assumed a new and far brighter aspect. The change was strikingly apparent, so much so, that no unbiased observer could fail of noticing it. I have at command, details in abundance illustrative of this fact, but there is not room here for their introduction. The annual exhibitions, in connection with ploughing matches, and the distribution of premiums, did not fail to fulfil what they had been supposed to promise. It is my opinion, that from the ploughing matches alone, advantages resulted to community more than sufficient to remunerate all the expenses of the agricultural societies. I am sensible that every plough-jogger thinks he knows how to plough; but the truth is, not more than one out of a hundred knows how to perform that operation as it should be done. Ploughing matches were not only useful as exercises for improvement in the art of ploughing, but *they* gave the first impulse to improvements in that all-important implement, the plough itself.

Although domestic manufactures and some of the mechanic arts flourished under the late agricultural institutions, no less than did agriculture itself, yet I have no space here for the introduction of those subjects. There rests not in my mind a doubt, that, as to both agriculture and domestic manufactures, the late agricultural institutions were useful to an extent very great, yet altogether unknown. It was the opinion of Mr. Skinner and the gentlemen associated with him in committee, that these institutions had been the indirect means of increasing the canal revenue so much, that the excess thus produced, had refunded to the treasury all its disbursements in behalf of agriculture, under the act of 1819. This, and more too, may be true. But who can calculate precisely on things of this nature? How difficult it is, in many such cases, to trace with accuracy the wonderful connections between causes and effects! It is not certain that the canals themselves would have come *complete* into existence, but for the impulse given to the enterprise and industry of our citizens by these very institutions, which Mr. Halsey and his associates place on their catalogue of failures. Not unlikely these institutions formed an essential link in that grand chain of events, which have subsequently been rolling on, and have resulted in elevating the state of New-York to the dignity of the "Empire State."

If things are so, or if there exist any good reasons to believe that the late agricultural institutions in this state have been useful, if it were only to a moderate extent, what do Mr. Halsey and his associates mean when they say, "The committee regret to be obliged to say, it" (that is the system embraced by the act of 1819,) "had little or no effect in improving the agriculture of this state." They say again, "Nor do they suppose that the actual amount of benefit to the agricultural population can be, with the least propriety, put in comparison with the evils which have resulted from the expense and loss of time to those farmers who attended the meetings of the societies, and the exhibitions necessary to execute the plan." These passages have been quoted before, but it seems necessary to keep them along with us, while we are prosecuting our inquiries on the subject before us.

What are we to think of these things? How came this Honorable Committee to possess knowledge so intuitive, so transcendant, and so far beyond that of their fellow-citizens, that too of their compeers, and even their superiors in political distinction, as to come to their conclusions on

these disputed questions, in a manner so perfectly satisfactory to themselves; conclusions, too, which are evidently at variance with the general sense of the community? SENEX.

December, 1834.

Brief Hints.--No. III.

HORSE-RACING—CATTLE FAIRS.

The friends of Horse-Racing defend the practice as highly useful in improving the breed of horses. Whether it has or has not *that* effect, is a matter of small consequence when the practice itself is considered in a moral point of view. Even though the *breed of horses* be improved, it would seem, from the gambling, drunkenness and profanity common on such occasions, that the *breed of men* is depreciated full as much as the brute creation is bettered.

Were half the amount of money and time squandered about horse-racing, employed in Fairs and other modes of exciting emulation among cattle-growers, the result would be far more beneficial to the farming interest, and much less pernicious to public morals.

The expediency of holding *Cattle Fairs* at regular intervals and in eligible situations throughout the country, is suggested for the consideration of all who take an interest in such matters. The arguments for or against such a measure will doubtless readily suggest themselves to the minds of those who bestow any attention on the subject. It seems to me that by such arrangements the public convenience might be promoted—the farmer be insured a ready sale or exchange for his cattle—and none have cause for complaint, save the speculators who prowl through the country for the purpose of obtaining stock far below the real value. Who has forgotten the manner in which those speculators, acting in concert and through emissaries scattered all at once about the country, a few years ago, suddenly swept nearly the whole stock of sheep from the farmers, particularly in the western part of this state. RHO.

Curing Corn Fodder.

BY I. D.

It has been a generally received opinion among farmers that corn fodder should be perfectly cured before it is placed in the stack, or mow, to prevent the accumulation of mould on the stalks. In this, I had always acquiesced, but an experiment involuntarily made, has gone far to convince me that my former views were erroneous. Being compelled to put up my corn fodder in a damp state, I had but small hope of its proving of any utility in wintering my stock, but was happily disappointed by the trial.

When I commenced feeding it out, much of it was entirely covered with white mould, and some quite rotten, yet to my surprise it seemed to have acquired additional attractions thereby, as my cattle devoured it with greater avidity than they did that which had acquired no mould. I have often remarked, that cattle would show a marked preference for hay near the bottom of a mow, which had undergone a greater degree of fermentation than that nearer the top, and generally denominated "*mow burnt.*" Without philosophyzing on this point, I would barely suggest the inquiry, whether by this carrying on the fermentation of food *previous* to its being fed to cattle, an advantage is not gained in the increased facility it imparts to the process of digestion?

Reasons for Fall Ploughing.

BY M. A.

1st. In no other way can land be so completely pulverized as by exposing it to the action of frost through the winter.

2d. It is useful in eradicating weeds, elders, and other bushes,—their roots being killed by the frosts.

3d. It is the most speedy method of eradicating that spreading curse, *Steer Craut*, or Red Root. Where this is the design of fall ploughing, it should be done early, and the land harrowed so that all the seed in the ground may vegetate. Ploughing it under in the spring ends the matter.

4th. The land is soft, our teams strong, feed plenty, and labor cheap.

5th. It forwards spring business wonderfully, enabling me to sow barley before I otherwise could begin to plough for it, and gives me leisure for the better performance of all the pressing concerns of this most busy season.

Farmers, try it. M. A.

Seed Wheat.

BY R. M. W.

MR. TUCKER—The plan recommended in the 2d No. of the Farmer, does not seem to me to be the best way of preparing Seed Wheat—because, 1st The screen will only take out the large kernels. These may be imperfect and light, and therefore unfit for seed. Again, they may have smut on the furze end. Again,—they may have the eggs of insects,—such as the *wheat worm*, &c.

Neither of these would be destroyed by the screen, and if the smut be a species of germina as is contended, then the screen will do little good. I think a strong brine, as heretofore recommended, is much better.

The salt and lime will destroy the fungi and the eggs of insects, and it is easier prepared and cheaper than even the screen recommended in the article above alluded to, at least so I believe, and remain, Yours, &c. R. M. W.

Tilling Orchards.

There are advantages and disadvantages in tilling an orchard. In tilled ground trees are the most vigorous and thrifty; and it seems to be in a measure necessary to plough a few years to give the young trees a start. Yet even at this period great care is required not to cut the roots with the plough. But when the trees have acquired six or eight years growth, and the roots become extended, still greater precaution is necessary, or the injury becomes serious. It is not altogether the large roots that are so liable to be cut, for these are often below the plough, but the innumerable fibres that spread in every direction, which escape the ploughman's notice, but which are literally the mouths that convey food to the plant. My practice has been, when an orchard is to be ploughed, to proceed first to dig the ground superficially with the spade, about the tree, two or three feet in breadth, and as many yards lengthwise of the furrows, so that there shall be no balk, and to run the plough shallow near the dug part; and where the orchard is in grass, to dig circles round the trees after harvest, both to facilitate growth, and to prevent injury in winter from moles. There is no less caution necessary in using the spade than the plough, to preserve the roots entire. It is a good practice to cut the grass close with a hoe, and then to strew rotten chip dung, if mixed with a little lime the better, about the tree.—*N. E. Far.*

Properties of Sugar.

Dutrone calls sugar the most perfect alimentary substance in nature, and the testimony of many physicians establishes the fact.* Dr. Rush, of Philadelphia, says, in common with all who have analyzed it, that "sugar affords the greatest quantity of nourishment in a given quantity of matter of any subject in nature." Used alone it has fattened horses and cattle in St Domingo for a period of several months, during the time when the exportation of sugar and the importation of grain were suspended from the want of ships.

The plentiful use of sugar in diet is one of the best preventives that ever has been discovered of the diseases which are produced by worms. Nature seems to have implanted a love for this aliment in all children, as if it were on purpose to defend them from those diseases.

Sir John Pringle tells us that the plague was never known to visit any country where sugar composes a material part of the diet of the inhabitants

Dr. Rush, Dr Cullen, and many other physicians, are of opinion that the frequency of malignant fevers of all kinds has been lessened by the use of sugar. Dr Rush observes, that, in disorders of the breast, sugar is the basis of many agreeable remedies, and it is useful in weaknesses and acrid refluxions in other parts of the body.†

The celebrated Tronchin recommended "Eau Sucre" for almost every malady. Dr. Fothergill was very anxious that the price of sugar should be sufficiently moderate to render it accessible to the mass of the people. From experiments made by some eminent French surgeons, it appears to be an antiscorbutic, and this is confirmed by well known facts.‡

Although sugar has for so long a time been used in our alimentary preparations, it is only since it has been analyzed by the French chemists, that it has come to be considered in itself an alimentary substance. The base of sugar is a glutinous matter, which, in its proper combination, is extremely pure and perfectly soluble, and consequently in the most favorable circumstances for easy digestion. It is therefore extremely wholesome and nutritious. Of this there is abundant proof. During crop time in the West

* He that undertakes, says Dr. Slare, to argue against sweets in general, takes upon him a very different task; for nature seems to have recommended this taste to all sorts of creatures; the birds of the air, the beasts of the field, many reptiles and flies, seem to be pleased and delighted with the specific relish of all sweets, and to distaste its contrary. Now, the sugar cane, or sugar, I hold for the top and highest standard of vegetable sweets.—*Edward's West Indies.*

† The celebrated Dr. Franklin had taken large quantities of *blackberry jam* for the pain of the stone, and found benefit from it; but discovered at length that the medicinal part of the jam resided wholly in the sugar. From half a pint of syrup prepared by boiling down sugar in water, and taken just before he went to bed, he declared that he often found the same relief that he did from a dose of opium.

It has been said that sugar injures the teeth, but this opinion does not deserve a serious reflection.—*Amer. Phil. Trans.* Vol. iii.

‡ A vessel came from the West Indies heavily laden with sugar. A calm that had not been foreseen, prolonged the passage till all their provisions were exhausted. The sugar was the only resource left to the crew, and nourished by it, they at length arrived safely in port. Some sailors had died of scurvy during the voyage, and many were threatened with death from the same cruel malady. The scurvy ceased when its victims were, from necessity, reduced to the sugar diet, and the remedy was, at the same time, an agreeable aliment.—*Le Gazette De Sante*, No. xliv. 1785.

Indies, all appear fat and flourishing; the cattle which are fed on the cane tops and the scummings, become sleek, and in better condition, although more worked at that time than at any other. The negroes drink freely of the juice, and the sickly among them revive and become fat and healthy. In China and in India the same beneficial effects are recorded. We are told by Sir George Staunton, that in the former country, many of the slaves and idle persons are frequently missing about the time that the canes become ripe, hiding themselves and living entirely in the plantations.

A writer from India observes, "The comfort and health arising to a poor family from a small patch of sugar cane, exclusive of what the jaggry may sell for, can only be known to such as may have observed them in the time of cutting the canes, and noted the difference in their looks before the crop begins, and a month or six weeks after."

The Cochin Chinese consume a great quantity of sugar; they eat it generally with their rice, which is the ordinary breakfast of people of all ages and stations.

There is little else to be obtained in all the inns of the country but rice and sugar; it is the common nourishment of travelers. The Cochin Chinese not only preserve in sugar all their fruits, but even the greater part of their leguminous vegetables, gourds, cucumbers, radishes, artichokes, the grain of the lotus, and the thick fleshy leaves of the alo. They fancy nothing is so nourishing as sugar. This opinion of its fattening properties has occasioned a whimsical law. The body guard of the king, selected for the purpose of pomp, are allowed a sum of money with which they must buy sugar canes, and they are compelled by law to eat a certain quantity daily. This is to preserve the embonpoint and good looks of those soldiers who are honored by approaching so near to the person of the king; and they certainly do honor to their masters by their handsome appearance. There are about five hundred of them, all equally sleek and plump, being actually fattened by sugar. Domestic animals, horses, buffaloes, elephants, are all fattened with sugar cane in Cochin China.

Sugar has been found to be an antidote to the poison of verdigris, if taken speedily and in abundance; and, unlike many other organic substances, its nutritious qualities are not liable to change from the operations of time or seasons. —*Porter on the Sugar Cane.*

Rhubarb.

This is one of the many plants which a farmer may have in his garden, and which may be made to contribute to the delicacies of his table, and to the health and comfort of his family, with very little expense or labor. The plant is perennial, and resembles much in its habits the burdock, though the leaves and their stalks may be somewhat larger, in a good soil. A dozen plants will serve to supply a family. The leaf stocks are the parts used. The skin or cuticle is pealed off—they are then cut into quarter or half inch pieces, and used without further preparation, with sugar and spices, like unripe gooseberries, for pies and tarts, which fruit it very much resembles in flavor. It may be used in the spring, and till midsummer. Medical men ascribe to it a salutary influence upon health, particularly to children, when used in this way. The seed ripens about midsummer, at which time it may be sown.—*Cultivator.*

Substitute for Ringing Swine.

To prevent swine from digging in the soil, the best method is to cut the two tendons of their snouts with a sharp knife, about an inch and an half from the nose. This may be done with little pain, and no prejudice to the animal, when about two or three months old. The common practice of restraining them by rings fixed in the snout is troublesome and painful; they must be replaced as often as they give way, and that happens so frequently, that rings afford but little security against the nuisance.—*Loudon.*

List of Payments

For the Farmer from Jan. 29 to Feb. 5, 1835.

For vol. 5.

A. D. Campbell.	Wm. Pitkin, 4 & 5.
Paschall Morris.	Sayes O. Nichols.
Dr. M. Tallman.	Apollos Gilbert.
John B. Faber.	Lauren Beach.
Alexander Walsh.	Westel Willoughby.
Wm. J. Lansing.	Asaph Carr.
D. Maden.	Augustus Frank.
Wm. Hadley, 4 & 5.	Maj. E. Kirby.
James Wood.	Lewis F. Noe.

For vol. 4.

A. F. Birchard.	Samuel Porter.
S. Jarvis.	Belden Seymour.

To July, 1835.

Lovewell Johnson.	C. & J. M'Donald & Co.
Jesse Maxon.	
John C. Boyd.	John R. Smith.
Charles Gale.	Levi Mason.
Silas Covell.	Albert Pugsley.

To July, 1834.

Wm. B. Culbertson.	P. N. Bonesteel.

☞ We also received *two* $1,00 bills in a letter from a subscriber at Mt. Pleasant, Ohio, on which we had to pay 75 cents postage. The terms proposed in his letter will be accepted, provided he pays the postage on his next remittance.

Meteorological Table,

KEPT AT ROCHESTER, FOR JANUARY, 1835.

	10 A. M.					10 P. M.				
Days	therm.	barometer.	winds	sky		therm.	barometer.	winds.	sky	
1	18	29,60	N	cloudy		16	29,30	N	cloudy	
2	22	29,40	W	do		18	29,50	N E	do	*a*
3	9	29,80	N E	do		7	29,95	N	do	*a*
4	10	30,00	W	fair		12	29,90	W	fair	
5	24	29,85	S W	do		24	29,85	S W	cloudy	
6	18	30, 5	N E	cloudy		12	30, 5	N E	fair	*b*
7	14	30, 5	N E	fair		12	30,00	N	do	
8	14	29,95	N W	do		16	29,95	N W	do	*c*
9	22	29,95	S W	do		16	29,95	S E	do	
10	24	29,90	S	do		16	29,85	S E	do	
11	34	29,75	S W	do		26	29,65	S	do	
12	40	29,50	S W	do		44	29,50	S	cloudy	*d*
13	46	29,50	S W	do		42	29,25	S	do	
14	45	29,25	S W	cloudy		38	29,40	W	fair	
15	42	29,40	S E	fair		44	29,05	S	cloudy	*e*
16	34	29,20	N W	cloudy		32	29,40	N W	do	
17	33	29,65	W	do		30	29,70	W	do	
18	31	29,75	N	fair		28	29,65	E	do	
19	38	29,60	S	do		35	29,40	W	do	
20	36	29,45	W	cloudy		37	29,55	S W	do	
21	40	29,25	S	do		38	28,90	S W	do	*f*
22	35	29,20	W	fair		36	29,25	W	do	
23	37	29,50	W	cloudy		30	29,70	N W	fair	
24	36	29,95	W	fair		31	29,80	E	do	
25	40	29,45	S	cloudy		42	29,15	S W	cloudy	*g*
26	44	29,20	S W	do		35	29,20	W	fair	
27	40	29,40	S W	do		38	29,20	N E	cloudy	*h*
28	38	29,25	N W	do		32	29,65	N W	do	
29	36	29,85	W	fair		34	29,60	N E	do	
30	14	29,25	S	cloudy		17	28,90	S	do	*i*
31	30	28,85	W	do		25	29,05	N W	do	*j*

MEANS —Ther. 30°—Barom. 29.54—depth of snow 7 inches.

The mean temp. &c. of Jan. for 5 years—

Yrs	Tem.	Sp wa.	Snow.	Rain.	Cold. day.	Warm. day.
1831	23	37	15 in.	3	21st 8°.5	4th 47°
1832	26	39	15	7	26th 1°	18th 47
1833	31	35	11	1.4	17th 10°	4th 61.5
1834	26	39	13	3	4th 12°	17th 47.5
1835	30	43	7	1.3	4th 8°	30th 45.5

a Snowy—*b* snows—*c* snows—*d* no sleighing—*e* spring water 43°—*f* rain—*g* rain—*h* rain—*i* showers all day—*j* snowy.

PRICES CURRENT.

ARTICLES.	PER	Feb. 7. ROCHESTER.	Jan. 31. NEW-YORK.
Ashes—Pot....	100lbs.	$3,40.....	$5,05 *a* 5,25
—— Pearl..	.....	4,00.....	6,90 *a* 7,00
Beeswax, yellow	lb.	0,18 *a* 0,20	21 *a* 22
Candles, mould	.....	0,12 *a* 0,00	10. *a* 13
—— dipped.	.....	0,11½ *a* 0,00	9 *a* 11
Cloverseed.....	.....	0,12½. ...	9 .*a*.10
Flax, American.	.....	.....	8..*a*.09
Flax seed, clean	tierce	9,00*a*10,00	16,00*a*16,50
Flour, Western.	barrel	4,75.....	5,50*a* 5,62
Grain, Wheat..	bushel	0,75*a*.0,00	1,06 *a*1,07
—— Rye....	.....	0,50.....	70..*a*..75
—— Oats...	.....	0,28..*a*..30	46..*a*..48
—— Corn...	.....	0,50.....	73..*a*..75
—— Barley..	.....	0,47..*a*..50	66..*a*..70
Hemp, American	ton	.....	100 *a* 120
House, 1st sort .	lb.	0,15.....	12..*a*..13
Plaster Paris...	ton	6,50 *a* 0,00	2,00*a*2,25
Beef, Mess....	barrel	7,50 *a*. 9,00	9,25 *a* 9,75
—— Prime....	.....	5,50 *a* 0,00	6,00 *a* 6,25
Pork, Mess....	.....	15,00*a*00,00	13,50*a*14,00
—— Prime....	.....	10,00.....	9,50*a*10,00
—— in the hog.	100lbs.	3,50 *a* 4,50	5,00.....
Tallow.....	.....	9,00 *a* 10,00	7,50 *a* 8,25
Hay.....	ton	9,00 *a* 11,00	9,75*a*11,20
Apples.....	bushel	75..*a*.100	.....

Clover Seed,

OF both the large and small varieties.—ALSO, a quantity of White Field Peas, (from Canada,) and large white Marrowfat Peas, of superior quality, just received and for sale at the Rochester Seed Store. REYNOLDS & BATEHAM.

Rochester, Jan. 31, 1835. jan 31

Monroe Horticultural Garden & NURSERY.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, *Mo*nroe co. N. Y. Sept. 13, 1834.

*Rochester Seed Store & Horti-*CULTURAL REPOSITORY.

No. 5 *Arcade Hall, next door but one to the Post-Office.*

REYNOLDS & BATEHAM, having completed their assortment, now offer to the pubiic the best and most extensive collection of Garden, Field and Flower Seeds, ever before offered in the Western country.

Their stock is entirely new, and having been purchased directly of the growers and importers, the vitality and purity of the seeds are expressly guaranteed. Farmers and Gardeners will find a great variety of new and valuable Seeds not heretofore introduced into this section of country.

They have also an assortment of superior Horticultural Implements, Books, &c.

Merchants and others supplied with assortments of Seeds for retailing at a liberal discount.

All orders for Seeds, Fruit or Ornamental Trees, Shrubs, Grape Vines, Green-House Plants, &c. &c. by mail or otherwise, will meet with prompt attention.

Cash will at all times be paid for Grass and Clover Seed, Peas, Beans, &c. dec 9-r4tf

Book for Farmers.

NUTTALL'S Manual of Ornithology of the United States and Canada, with numerous Engravings, a volume containing 700 pages, price $2 50.

For sale by HOYT & PORTER.

Scene in a Private Mad-House.

The following lines, descriptive of a scene in a private mad-house, are from the pen of M. G. Lewis, Esq. They were published in the National Intelligencer about eight years since, the editors of which paper introduced them with these remarks:—"If any one can read the following lines without shuddering with sympathy with the supposed captive, he must have a heart dead to every human feeling. The perusal of them has more effect upon us, from the conviction we have for some time entertained, that insanity, when superinduced (not natural)—when it is an affection of the mind and not a defect of organization—is often the consequence of the treatment of the disease not merely of the estrangement of friends; of seclusion from the world, of coercion; but of the horrible dread of being thought mad by others. We recollect hearing of the case of an enlightened physician, who was carried by his friends to an asylum for the insane, after exhibiting symptoms of an alienation of mind. 'My God! have I come to this? Never shall I leave these walls!'"

Stay, jailor, stay, and hear my woe?
  She is not mad who kneels to thee;
For what I'm now, too well I know,
  And what I was, and what should be.
I'll rave no more in proud despair;
  My language shall be mild, though sad:
But yet I firmly, truly swear,
  I am not mad, I am not mad.

My tyrant husband forged the tale,
  Which chains me in this dismal cell;
My fate unknown my friends bewail—
  Oh jailor, haste that fate to tell;
Oh! haste my father's heart to cheer;
  His heart at once 'twill grieve and glad
To know, though kept a captive here,
  I am not mad, I am not mad.

He smiles in scorn and turns the key;
  He quits the gate; I knelt in vain;
His glimmering lamp, still, still I see—
  'Tis gone! and all is gloom again,
Cold, bitter cold,—No warmth! no light!—
  Life, all thy comforts once I had;
Yet here I'm chained this freezing night,
  Although not mad! no, no, not mad.

'Tis sure some dream; some vision vain;
  What! I,—the child of rank and wealth,—
Am I the wretch, who clanks this chain,
  Bereft of freedom, friends and health?
Ah! while I dwell on blessings fled,
  Which never more my heart must glad,
How aches my heart, how burns my head;
  But 'tis not mad; no, 'tis not mad,

Hast thou, my child, forgot, ere this,
  A mother's face, a mother's tongue?
She'll ne'er forget your parting kiss,
  Nor round her neck how fast you clung;
Nor how with me you sued to stay;
  Nor how that suit your sire forbade;
Nor how—I'll drive such thoughts away;
  They'll make me mad, they'll make me mad.

His rosy lips, how sweet they smiled!
  His mild blue eyes, how bright they shone!
None ever bore a lovelier child,
  And art thou now forever gone?
And must I never see thee more,
  My pretty, pretty, pretty lad?
I will be free! unbar the door!
  I am not mad, I am not mad.

Oh! hark! what mean those dreadful cries?
  His chains some furious madman breaks,
He comes,—I see his glaring eyes:
  Now, now my dungeon grate he shakes,
Help! help!—He's gone!—Oh! fearful wo,
  Such screams to hear, such sights to see!
My brain, my brain—I know, I know,
  I am not mad, but soon shall be.

Yes, soon; for, to you!—while I speak—
  Mark how yon demon's eye balls glare!
He sees me, now with dreadful shriek,
  He whirls a serpent high in air.
Horror!—the reptile strikes his tooth
  Deep in my heart, so crushed and sad,
Ay, laugh, ye fiends;—I feel the truth;
  Your task is done—*I'm mad, I'm mad!*

The best way to be Happy.

Never sit down and brood over trouble of any kind. If you are vexed with yourself or the world, this is no way to obtain satisfaction. Find yourself employment that will keep the mind active, and depend upon it this will force out unwelcome thoughts.

Who are the poor? Are they the industrious? Those who labor, provided their gains are small, have generally a feeling of independence with that little akin to the rich man's treasures.

Who are the unhappy? Are they not those who are inactive, and sit still and tell us, if fortune had only thrown this and that in their way, that they should have been far happier?

It seems to me there is a great defect in the conduct of the unfortunate. If we are deprived of ordinary resources, instead of looking round and substituting other things, are we not prone to sit down and mourn what we have lost? This deadens the energies, kills the activity of our natures, and makes us useless drones, when we should be working bees.

Besides this, indolence sets fancy at work, and presently we imagine ourselves to be in a condition, that we are unfit to work. We get the habit of observing the changes in the wind, we feel our pulses, look at our tongue, and in a short time become regular dyspeptics. Industry then, preserves health as well as happiness.

The Plurality of Worlds.

From Mr. Mosley's 'Introductory Lecture on Astronomy.'

If we find among these distant groupes or systems of suns, the same equal description of areas, and the ratio of periodical times, we conclude that the stars of each system attract one another; that the force by which they are attracted varies inversely as the square of the distance, and is, therefore, similar to gravity: and lastly, that motion is there governed by the same laws as here. Now we do find this to be the case. The motion of double stars have been very accurately observed, among others, by Sir J. Herschel: and he has ascertained that their motion is subject to these laws. He has accurately determined their periodic times, the axis majores, and eccentricities of eight of them; and in every respect does he find the relations which exist between the planetary motions, to obtain among the bodies which compose these far remote systems. What, then, is the conclusion?—that all these multiplied and isolated systems which people space, and of which the universe is the aggregate, are subject to the same laws of motion and force as obtain here: Thus the laws of gravity and motion, which Newton showed to embrace at once the fall of bodies at the earth's surface, and the phenomena of our planetary system, must he extended to the region of fixed stars, and are universal. With us all matter is crowded with life, every interstice in it is but the habitant of some organised living agent, or the space wherein some form of vegetable life develops itself. Now the the matter of the planetary bodies is analogous to ours in every other respect, why not in this too, that it is the appointed dwelling-place of organized living beings? and if of the subordinate classes of these, why not of intelligent living beings? Surely, in the absence of an opposite state of things, we are bound to conclude by far the most reasonable supposition to be, that our planet, which is in every other respect a sample of the other bodies of our system, resembles them in this also; they, as well as ourselves, have their day and night, their summer and their winter; why, as with us, should not these changes be coupled with the phenomena of animal and vegetable life? What a prodigious field of speculation is thus opened to our view! Mercury, for instance, completes his year in about one quarter of ours, and he receives about seven times as much heat from the sun. What then, is the vegetation, and what the class of living beings suited to this rapid change of seasons and glowing temperature? Jupiter's year is nearly twelve of ours, and each of his seasons is thus three years in length: what gigantic vegetation is that which goes through this toilsome period of change? His day is about ten hours long. What development of animal life is that whose periods of repose come more than twice as frequently as our own? Four bright moons illuminate the short night of this planet. Why is this short period of repose brightened almost into daylight? But if it be by far the most probable of the two hypothesis to suppose that the planets of our own system, because of the analogy they bear in other respects to our own planet, display with it the wonders of anima land vegetable creation, then must the planetary systems which unquestionably surround the stars, too, having a direct analogy to those of our system, be admitted to be, like them, but the means, but the agents in the dissemination of life through all space; thus all the boundless fields through which the stars of heaven take their course, are peopled with beings who bow before God in speechless thanksgiving for the enjoyment of the blessing of life, or whose privilege it is to offer to him the incense of reason and of the understanding.

Flour Inspection.

The report of John Lane, late Inspector of Flour in the city of New-York and county of Kings, showing the amount inspected from 22d Feb. to Nov. 1, 1834, was submitted to the Assembly yesterday. The following is an abstract:

Amount Inspected.	*Fees.*
871,895 bbls. wheat flour,	8,718 95
30,467 half bbls. "	304 37
14,639 bbls Rye "	146 39
10 bbls. buckwheat	10
10 half bbls. "	10
4,778 hhds. Indian meal	143 34
18,190 bbls. "	181 90
14 bbls. light	84
Amount of fees	9,495 99
Disbursements for inspection	5,015 39
	$4,480 60

Inspected in Kings co., during the year 1834, 4,532 bbls. flour. Fees for inspection received by Thorn Carpenter, deputy inspector, for his compensation, $90,64.

Also the following report of C. P Tappan, inspector of flour in the city of New-York, from 1st Nov. 1834 to 1st Jan. 1835. The following is an abstract:

Amount Inspected.	*Fees.*
330,277 bbls. wheat flour	3,302 77
11,690 half bbls. "	116 90
2,565 bbls. rye "	25 65
1,715 hhds. Indian meal	51 45
4,272 bbls. "	42 72
39 bbls. buckwheat	39
20 half bbls. "	20
	3,540 08
Disbursements for inspection	2,284 55
[*Albany Argus.*]	$1,284 55

Top Onions.

One of the most profitable crops to which a farmer can appropriate a portion of his grounds, is top onions. Independent of the value of the bulb, or full-grown onions, the top onions will command from two to three and a half dollars per bushel.—*N. Y. Farmer.*

Potatoe Starch.

Let the potatoe be taken and grated down to a pulp, and the pulp placed upon a fine sieve, and water made to pass through it; the water will be found to have carried off with it an infinite number of particles, which it will afterwards deposit in the form of white powder, separable by decantation, which powder is starch, possessing all the essential properties of wheaten starch.—*Loudon.*

"Why did Adam bite the apple?" said a schoolmaster to a country boy. "Because he had no knife," said the boy.